

What is claimed is:

1. Method for brewing tea comprising:

introducing water into a blend tank;

circulating water from said blend tank through a heat exchanger for heating said water to a predetermined temperature and returning said water to said blend tank;

transferring said water into a brew tank containing tea;

circulating said water in said brew tank into contact with said tea thereby producing liquid tea concentrate; and

circulating said concentrate from said brew tank through said heat exchanger and said blend tank.

2. The method according to claim 1 wherein said method further comprises mixing a liquid sweetener with said concentrate.

3. The method according to claim 2 wherein said step of mixing a liquid sweetener comprises introducing said liquid sweetener into said concentrate while said concentrate is circulated through said heat exchanger.

4. The method according to claim 3 wherein said method further comprises conducting said liquid sweetener through a second heat exchanger for heating said liquid sweetener prior to introducing said liquid sweetener into said concentrate.

5. The method according to claim 4 wherein said method further comprises conducting said liquid sweetener through a mass flow meter for measuring the quantity of sweetener added.

6. The method according to claim 5 wherein said method further comprises circulating said water through a mass flow meter to measure the quantity of water.

7. The method according to claim 6 wherein said method further comprises introducing flavoring to said concentrate as said concentrate is circulated through said heat exchanger.

8. The method according to claim 1 wherein said method further comprises circulating said concentrate through a cooling system to cool said concentrate.

9. The method according to claim 8 wherein said method further comprises storing said concentrate in a storage tank in a cold storage room after passing through said cooling system.

10. The method according to claim 9 wherein said method further comprises introducing said

concentrate into a mixing tank and adding water to said concentrate to produce a liquid tea beverage.

11. The method according to claim 10 wherein said method further comprises mixing a liquid sweetener with said concentrate.

12. The method according to claim 11 wherein said step of mixing a liquid sweetener comprises introducing said liquid sweetener into said concentrate while said concentrate is circulated through said heat exchanger.

13. The method according to claim 12 wherein said method further comprises conducting said liquid sweetener through a second heat exchanger for heating said liquid sweetener prior to introducing said liquid sweetener into said concentrate.

14. The method according to claim 13 wherein said method further comprises conducting said liquid sweetener through a mass flow meter for measuring the quantity of sweetener added.

15. The method according to claim 14 wherein said method further comprises circulating said water through a mass flow meter to measure the quantity of water.

16. The method according to claim 15 wherein said method further comprises introducing flavoring to said concentrate as said concentrate is circulated through said heat exchanger.

17. The method according to claim 1 wherein said method further comprises:

placing a plurality of tea bags on a lifting base disposed in said brew tank; and

raising said lifting base until said tea bags contact a holding plate thereby squeezing liquid tea concentrate from said tea bags.

18. The method according to claim 17 wherein said method further comprises:

raising said lifting base to place said tea bags on said lifting base; and

lowering said lifting base into said brew tank.

19. Method for brewing tea comprising:

placing a plurality of tea bags on a lifting base disposed in a brew tank;

lowering said lifting base into said brew tank;

circulating heated water through said brew tank and into contact with said tea bags thereby brewing liquid tea concentrate; and

raising said lifting base until said tea bags contact a holding plate thereby squeezing liquid tea concentrate from said tea bags.

20. The method according to claim 19 wherein said method further comprises:

introducing water into a blend tank;

circulating water from said blend tank through a first heat exchanger for heating said water to a predetermined temperature and returning said water to said blend tank; and

circulating said water from said blend tank through said brew tank.

21. The method according to claim 20 wherein said method further comprises circulating said water from said brew tank through said first heat exchanger and through said blend tank.

22. The method according to claim 21 wherein said method further comprises mixing a liquid sweetener with said liquid tea concentrate.

23. The method according to claim 22 wherein said method further comprises conducting said concentrate through a cooling system to cool said concentrate.

24. The method according to claim 23 wherein said method further comprises introducing said concentrate into a mixing tank and adding water to said concentrate to produce a liquid tea beverage.

25. The method according to claim 24 wherein said step of mixing a liquid sweetener comprises introducing said liquid sweetener into said concentrate while said concentrate is circulated through said first heat exchanger.

26. The method according to claim 25 wherein said method further comprises conducting said liquid sweetener through a second heat exchanger for heating said liquid sweetener prior to introducing said liquid sweetener into said concentrate.

27. The method according to claim 26 wherein said method further comprises conducting said liquid sweetener through a mass flow meter for measuring the quantity of sweetener added.

28. The method according to claim 27 wherein said method further comprises circulating said water through a mass flow meter to measure the quantity of water.

29. The method according to claim 28 wherein said method further comprises introducing flavoring to said concentrate as said concentrate is circulated through said first heat exchanger.

30. Apparatus for brewing tea comprising:

a blend tank for blending ingredients;

a first heat exchanger connected to said blend tank for heating water circulated through said first heat exchanger;

a brew tank connected to said blend tank and in fluid communication with said heated water;

tea bags disposed in said brew tank in contact with said heated water for brewing liquid tea concentrate; and

a pump in fluid communication with said blend tank, said first heat exchanger and said brew tank for pumping said water therethrough.

31. The apparatus according to claim 30 wherein said apparatus further comprises a source of liquid sweetener connected to said blend tank for mixing a liquid sweetener with said concentrate.

32. The apparatus according to claim 31 wherein said apparatus further comprises a cooling system connected to said blend tank for cooling said concentrate.

33. The apparatus according to claim 32 wherein said apparatus further comprises a mixing tank connected to said cooling system and to a water source

for mixing water with said concentrate to produce a liquid tea beverage.

34. The apparatus according to claim 33 wherein said apparatus further comprises a second heat exchanger connected to said blend tank for heating said liquid sweetener prior to mixing said sweetener with said concentrate.

35. The apparatus according to claim 34 wherein said apparatus further comprises a first mass flow meter connected to said blend tank for measuring the quantity of water.

36. The apparatus according to claim 35 wherein said apparatus further comprises a second mass flow meter connected to said source of liquid sweetener for measuring the quantity of liquid sweetener.

37. The apparatus according to claim 36 wherein said apparatus further comprises a source of flavoring connected to said blend tank for flavoring said concentrate.

38. The apparatus according to claim 37 wherein said apparatus further comprises tea bag squeezing apparatus disposed in said brew tank for squeezing concentrate from said tea bags.

39. The apparatus according to claim 38 wherein said tea bag squeezing apparatus comprises a hoist connected to a squeeze plate for squeezing said tea bags.



40. Apparatus for brewing tea comprising:

a blend tank for blending ingredients;

a first heat exchanger connected to said blend tank for heating water;

a brew tank connected to said blend tank for brewing tea;

a lifting base disposed in said brew tank;

a plurality of tea bags disposed on said lifting base;

lifting means connected to said lifting base for raising and lowering said lifting base relative to said brew tank; and

a pump in fluid communication with said blend tank, said first heat exchanger and said brew tank for circulating heated water therethrough and into contact with said tea bags for brewing tea concentrate.

41. The apparatus according to claim 40 wherein said apparatus further comprises a holding mechanism connected to said brew tank with said tea bags being disposed between said holding mechanism and said lifting base for squeezing said concentrate from said tea bags.

42. The apparatus according to claim 41 wherein said apparatus further comprises a tank lid removably attached to said brew tank and to said holding mechanism for sealing said brew tank and preventing exposure of said concentrate to outside air.

43. The apparatus according to claim 42 wherein said holding mechanism comprises:

a squeeze plate removably attached to said brew tank;

a hold plate disposed between said squeeze plate and said lifting base for squeezing said tea bags between said lifting base and said hold plate; and

a plurality of support rods connecting said squeeze plate and said hold plate.

44. The apparatus according to claim 43 wherein said apparatus further comprises a plurality of vertical rods slidably disposed through said squeeze plate and connected at one end to said tank lid and at the other end to said lifting base.

45. The apparatus according to claim 44 wherein said lifting means comprises a hoist connected to said tank lid.

46. The apparatus according to claim 45 wherein said apparatus further comprises a source of liquid sweetener connected to said blend tank for mixing a liquid sweetener with said concentrate.

47. The apparatus according to claim 46 wherein said apparatus further comprises a cooling system connected to said blend tank for cooling said concentrate.

48. The apparatus according to claim 47 wherein said apparatus further comprises a mixing tank connected to said cooling system and to a water source for mixing water with said concentrate to produce a liquid tea beverage.

49. The apparatus according to claim 48 wherein said apparatus further comprises a second heat exchanger connected to said blend tank for heating said liquid sweetener prior to mixing said sweetener with said concentrate.

50. The apparatus according to claim 49 wherein said apparatus further comprises a first mass flow meter connected to said blend tank for measuring the quantity of water.

51. The apparatus according to claim 50 wherein said apparatus further comprises a second mass flow meter connected to said source of liquid sweetener for measuring the quantity of liquid sweetener.

52. The apparatus according to claim 51 wherein said apparatus further comprises a source of flavoring connected to said blend tank for flavoring said concentrate.

53. The apparatus according to claim 52 wherein said apparatus further comprises filtering means

connected to said brew tank for filtering said concentrate.